AMENDMENTS TO THE CLAIMS

1. (Currently amended) A hydrophilic microporous membrane comprising a thermoplastic resin, having been contacted with a hydrophilic vinyl monomer having one vinyl group after generation of radicals by irradiation with ionizing radiation in order to be subjected to hydrophilizing treatment by a graft polymerization reaction, and having a maximum pore size of 10 to 100 nm,

wherein said hydrophilic microporous membrane has a coarse structure layer with a higher open pore ratio and a fine structure layer with a lower open pore ratio which are formed in one piece, wherein said coarse structure layer exists on at least one side of the membrane surface and has a thickness of 2 μm or more and a thickness of said fine structure layer is 50% or more of the whole membrane thickness,

wherein when 3 wt% bovine immunoglobin having a monomer ratio of 80 wt% or more is filtered at a constant pressure of 0.3 MPa, an average permeation rate (liter/m^2/h) for 5 minutes from the start of filtration (briefly referred to as globulin permeation rate A) satisfies the following formula (1) and an average filtration (permeation) rate (liter/m^2/h) for 5 minutes from the time point of 55 minutes after the start of filtration (briefly referred to as globulin permeation rate B) satisfies the following formula (2):

$$\text{Globulin permeation rate A} > 0.0015\ \text{maximum pore size (nm)}^{2.75} \quad (1)$$

$$\text{Globulin permeation rate B/globulin permeation rate A} > 0.2 \quad (2).$$

2.-14. (Cancelled)

15. (Previously presented) The hydrophilic microporous membrane according to claim 1 having a maximum pore size of 10 to 70 nm.

16. (Previously presented) The hydrophilic microporous membrane according to claim 1 having a maximum pore size of 10 to 36 nm.

17. (Previously presented) The hydrophilic microporous membrane according to claim 1 having a receding contact angle of water of 0 to 20 degrees.

18. (Previously presented) The hydrophilic microporous membrane according to claim 15 having a receding contact angle of water of 0 to 20 degrees.

19. (Previously presented) The hydrophilic microporous membrane according to claim 16 having a receding contact angle of water of 0 to 20 degrees.

20. (Previously presented) The hydrophilic microporous membrane according to claim 1, wherein a logarithmic reduction value of porcine parvovirus at the time point by which 55 liter/m^2 has been permeated from the start of filtration is 3 or more.

21. (Previously presented) The hydrophilic microporous membrane according to claim 1, wherein both of a logarithmic reduction value of porcine parvovirus at the time point by which 5 liter/m^2 has been permeated from the start of filtration and a logarithmic reduction value of porcine parvovirus at the time point by which further 5 liter/m^2 has been permeated after 50 liter/m^2 is permeated are 3 or more.

22. (Previously presented) The hydrophilic microporous membrane according to claim 1, wherein an accumulated permeation volume in three hours after the start of filtration is 50 liter/m^2 or more when 3 wt% bovine immunoglobulin having a monomer ratio of 80 wt% or more is filtered at a constant pressure of 0.3 MPa.

23. (Previously presented) The hydrophilic microporous membrane according to claim 16, wherein an accumulated permeation volume in three hours after the start of filtration is 50 liter/m^2 or more when 3 wt% bovine immunoglobulin having a monomer ratio of 80 wt% or more is filtered at a constant pressure of 0.3 MPa.

24. (Previously presented) The hydrophilic microporous membrane according to claim 21, wherein an accumulated permeation volume in three hours after the start of

filtration is 50 liter/m^2 or more when 3 wt% bovine immunoglobulin having a monomer ratio of 80 wt% or more is filtered at a constant pressure of 0.3 MPa.

25. (Previously presented) The hydrophilic microporous membrane according to claim 1, wherein the microporous membrane containing a thermoplastic resin is a microporous membrane having a coarse structure layer with a higher open pore ratio and a fine structure layer with a lower open pore ratio, and the coarse structure layer exists on at least one side of the membrane surface and has a thickness of 2 μm or more and a thickness of the fine structure layer is 50% or more of the whole membrane thickness, and the coarse structure layer and the fine structure layer are formed in one piece.

26. (Previously presented) The hydrophilic microporous membrane according to claim 25, wherein the thickness of the coarse structure layer is 3 μm or more.

27. (Previously presented) The hydrophilic microporous membrane according to claim 25, wherein the thickness of the coarse structure layer is 5 μm or more.

28. (Previously presented) The hydrophilic microporous membrane according to claim 1, wherein the thermoplastic resin is polyvinylidene fluoride.

29. (Previously presented) The hydrophilic microporous membrane according to claim 1, wherein the hydrophilizing treatment is a graft polymerization reaction of a hydrophilic vinyl monomer having one vinyl group to the surface of the pores of the hydrophilic microporous membrane.

30. (Previously presented) The hydrophilic microporous membrane according to claim 29, wherein the hydrophilic vinyl monomer contains a hydroxyl group.

31. (Previously presented) The hydrophilic microporous membrane according to claim 1, wherein the adsorption amount per 1 g of the membrane is 3 mg or less when dead-end filtration at a constant pressure of 0.3 MPa is performed using a 0.01 wt% bovine immunoglobulin solution and a filtrate of 50 liter/m^2 from the start of filtration is collected.

32. (Previously presented) A method for removing a virus from a liquid containing a physiologically active substance, comprising filtering the liquid through the hydrophilic microporous membrane according to claim 1.

33. (Previously presented) A hydrophilic microporous membrane, characterized in that both of a logarithmic reduction value of porcine parvovirus at the time point by which 5 liter/m^2 has been permeated from the start of filtration and a logarithmic reduction value of porcine parvovirus at the time point by which further 5 liter/m^2 has been permeated after 50 liter/m^2 is permeated are 3 or more, and when 3 wt% bovine immunoglobulin having a monomer ratio of 80 wt% or more is filtered at a constant pressure of 0.3 MPa, an average permeation rate (liter/m^2/h) for 5 minutes from the start of filtration (briefly referred to as globulin permeation rate A) satisfies the following formula (1) and an average permeation rate (liter/m^2/h) for 5 minutes from the time point of 55 minutes after the start of filtration (briefly referred to as globulin permeation rate B) satisfies the following formula (2):

$$\text{Globulin permeation rate A} > 0.0015 \times \text{maximum pore size (nm)}^{2.75} \quad (1)$$

$$\text{Globulin permeation rate B/globulin permeation rate A} > 0.2 \quad (2).$$